BEFORE THE MISSISSIPPI PUBLIC SERVICE COMMISSION

MISSISSIPPI PUBLIC SERVICE COMMISSION **2019-UA-116**

IN RE: **PETITION OF MISSISSIPPI POWER COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR ENVIRONMENTAL COMPLIANCE ACTIVITIES AUTHORIZING THE CLOSURE OF THE ASH POND, CONSTRUCTION OF LOW VOLUME WASTEWATER TREATMENT FACILITIES, AND CONVERSION OF BOTTOM ASH COLLECTION FACILITIES FOR THE PLANT VICTOR J. DANIEL ELECTRIC GENERATING FACILITY IN JACKSON COUNTY MISSISSIPPI**

SIERRA CLUB'S
MOTION TO REQUIRE SUPPLEMENTATION OF THE PETITION AND A REVISED SCHEDULING ORDER

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1. Introduction

Mississippi Power Company's ("MPC" or "Mississippi Power") petition seeks permission to spend a total of between $44.49 million and $96.8 million on three different projects at Plant Victor J. Daniel Units 1 and 2. [1]

Between $23.45 million and $56.95 [2] million is for the closure of the ash pond at Daniel, which under the Environmental Protection Agency's Coal Combustion Residuals ("CCR") rule is going to have to happen at some point between 1 year and 6 years from now. Between $17.89 million and $32.2 million, however, is for a dry bottom ash handling system which will be unnecessary if the plant is retired. Between $14.88 and $36.13 million is for a system to treat low volumes of contaminated waste water from operations at the plant, and at least some of this amount could be avoided if the plant ceases operations.

The publicly available information strongly indicates that Plant Daniel is uneconomic to operate, and a burden to the MPC ratepayer. MPC's petition in fact all but admits that Plant Daniel is uneconomic to operate, and the company's last Reserve Margin Plan directly states that Units 1 and 2 are unnecessary to satisfy customer energy demand.[3]

MPC's filings nonetheless do not contain the data on economics, alternatives and other issues necessary to assess whether the public convenience and necessity actually requires plowing tens of millions of additional dollars into Plant Daniel. The unexamined alternatives include retiring Units 1 and 2, which would trigger the alternative extended closure provisions of

[1] In this memorandum, "Plant Daniel" is used to refer to Plant Daniel Units 1 and 2, exclusive of Units 3 and 4.

[2] Exhibit MPL-3 to Testimony of Mark Loughman. MPC's cost estimates are "feasibility" with an accuracy range of -25% to +35% and "screening," with an accuracy range of -30% to +70%. The ash pond closure is a screening level estimate. The numbers used here reflect MPC's 50% share of the total cost.

[3] MSPC Docket No. 2017-AD-112, Mississippi Power Company, Reserve Margin Plan Filing at 15 (Aug. 6, 2018) (noting the Daniel units "have value only as capacity (as compared to energy value)").

the CCR rule, and render approximately $20-40 million of the proposed $44.49-96.8 million in capital expenditures unnecessary. MPC's filings also do not address the impact of Gulf Power Company's decision to retire its 50% interest in these units by 2024.[4] Instead, the company's original filings assert summarily that transmission constraints, and the need to treat low volume wastewater, require the company to keep Daniel operating "regardless of the long term economics of the units."[5]

Some information about MPC's evaluation of the economics of the Daniel units, and the claimed transmission constraints, was supplied at 6:30 PM on Friday, September 20, in the form confidential data responses to data requests. No party has had the opportunity to perform even minimal due diligence on this critical information, but it clearly indicates that many of the expenditure proposed in this petition are improvident.

The CCR rule requires – absent an alternative closure plan – that the ash pond stop receiving CCR by October 2020. This deadline has been in place for nearly five years, and MPC has had more than adequate opportunity to provide the appropriate data and analysis to support its petition. By waiting to file this petition until July 2019, MPC effectively asserted that the Commission has only two options: decide immediately to allow the company to spend tens of millions on unnecessary systems for a plant that is to all appearances uneconomic, or shut the plant down in the next 12 months and cause unspecified instability in the grid.

MPC's inadequate petition and recent disclosures leave the Commission and the parties in a legally untenable posture. MPC's petition did not address the matters required by the Commission's rules and administrative law to make a *prima facie* case, and even with responses

[4] *See* Exhibit ___ (NextEra discovery response).

[5] Testimony of Mark Loughman, p. 11.

to data requests, the parties still do not know MPC's position on key issues such as the unspecified transmission constraints. After the parties submit testimony, MPC may attempt to make its case in rebuttal, with no opportunity for further testing of its claims.

In order to make a reasoned, legally-sound decision on MPC's petition, the Commission must require an adequate petition from MPC, and an opportunity for the parties and the public to evaluate and respond to that petition. The need for a sound process is particularly acute for Plant Daniel, because the factual underpinnings Mississippi Power has presented for other recent and massive investments in the plant have proven erroneous.

2. The recent massive investment in Plant Daniel' scrubbers was based on inaccurate projections, and the available data indicates the Plant is uneconomic for ratepayers.

The recent history of Plant Daniel is relevant to this motion. As this Commission is well aware, coal-fired power plants can be very expensive for ratepayers, and add a lot of money to rate base for utilities. Seven years ago Mississippi Power Company petitioned to add $313 million in sulfur dioxide scrubbers to Plant Daniel. At the time the company had options other than investing in expensive scrubbers. It could have replaced one or both of Plant Daniel's coal-burning boilers with more cost-effective, affordable renewable energy, or it could have converted the boilers into gas-burning peakers, which could have served spikes in demand. Instead, the Company insisted that the $313 million scrubber investment was necessary to comply with impending environmental compliance obligations, asserting that:

- Plant Daniel is critical as a baseload resource and would provide 20% of the company's energy needs;[6]

[6] Order, Miss. Pub. Serv. Comm'n Docket No.2010-UA-79, *Petition of Mississippi Power Company for a Certificate of Public Convenience and Necessity Authorizing the Acquisition, Construction, and Operation of Environmental Control Equipment and Related Facilities on the Victor J. Daniel Electric Generating Facility in Jackson County, Mississippi*, 2012 WL 1484068, at *11-12 (Miss. PSC. Apr. 3, 2012).

- The company's reserve margin calculation is "very conservative" and not nearly as big as it looks;[7]
- Natural gas prices in 2020 will be at a minimum 100% higher than they are today;
- The scrubbers will actually work as they were supposed to.

Just as it does in this petition, when MPC petitioned the Commission for the scrubbers, the company warned the Commission that "an immediate decision is required." At the time Commissioner Presley correctly expressed serious concerns about the "false" and "misleading[]" economic and fuel diversity premises underlying the Daniel scrubber retrofit, Mississippi Power's uncertain "need for capacity that is four times [its] actual requirement," and a future of "intensive environmental compliance requirements for Daniel."[8]

MPC's key predictions regarding the Plant Daniel scrubber investment have proven to be incorrect.

As noted above, MPC predicted in the $313 million Daniel scrubber docket that *low* natural gas prices in 2020 would be approximately $6 per mcf in 2020.[9] Instead natural gas prices are presently about $2.90 per mcf at the Henry Hub.

Mississippi Power's optimistic projections about increasing energy demand were similarly mistaken. Mississippi Power's filings in other Commission dockets confirm that the Company does not even need the Daniel plant to reliably serve its demand. In fact, Mississippi Power's most recent Reserve Margin Plan indicates that by 2020, the Company will have

[7] Second Rebuttal Testimony of David Schmidt, p. 3, Docket No. 2010-UA-79.

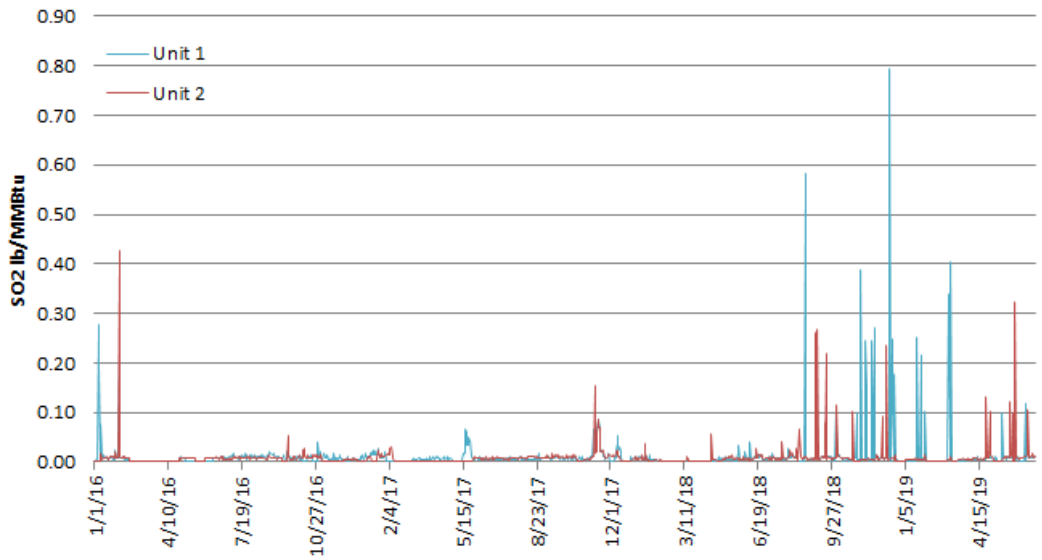
[8] MPSC Docket No. 2010-UA-279 (Commissioner Presley, dissenting), *In re: Petition of Mississippi Power Company for a Certificate of Public Convenience and Necessity Authorizing the Acquisition, Construction, and Operation of Environmental Control Equipment and Related Facilities on the Victor J. Daniel Electric Generating Facility in Jackson County, Mississippi*, 2012 WL 1484069, at *2-3 (Miss.P.S.C. Apr. 4, 2012).

[9] February 2, 2012 Supplemental Filing, MPSC Docket No. 2010-UA-279.

approximately 1,400 MW more generation capacity than needed, well in excess of their required reserve margin of under 400 MW. In fact, the Reserve Margin Plan confirms Sierra Club's assessment that the Daniel power plant has little to no energy value,[10] and that the Company could retire its share of both Daniel units and still have more than enough capacity to meet its required reserve margin.

Based on recent increases in harmful sulfur dioxide ("SO2") pollution at Plant Daniel, the Company appears to be operating its new $313 million scrubbers only periodically or inefficiently.

Figure 1: Sulfur Dioxide Emission Rates for Daniel[11]



[10] MSPC Docket No. 2017-AD-112, Mississippi Power Company, Reserve Margin Plan Filing at 15 (Aug. 6, 2018) (noting the Daniel units "have value only as capacity (as compared to energy value)").

[11] As reflected in the figure, in the last year, Daniel has emitted more than eight times the SO2 than the $300 million scrubbers were designed to achieve. Mississippi Power's self-reported data is available at https://ampd.epa.gov/ampd/.

MPC also admits that Daniel's compliance with the Clean Air Act's Regional Haze program continues to be a risk,[12] which could require additional operations and maintenance costs, increasing the total cost of operating the plant.

MPC also originally asserted that the plant was critical as baseload capacity and would supply 20% of the company's energy needs. Instead, the capacity factor has dropped precipitously over the last decade, and it now operates only 25 percent of the time. [13]

Figure 2: Plant Daniel Capacity Factor[14]

MPC had not supplied any economic analysis in this docket until its recent confidential data responses. However, Sierra Club's initial economic analysis, using publicly available data,

[12] *See* Southern Company, Form 10-k, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, for the fiscal year ended December 31, 2018, at page II-33, http://d18rn0p25nwr6d.cloudfront.net/CIK-0000092122/5a130524-afbe-4cc0-9af2-62900083e57d.pdf (noting Plant Daniel continues to be evaluated under the Clean Air Act's regional haze program, which "could increase compliance costs").

[13] It is important to note that the increase in Plant Daniel's *hourly* SO2 emission rate is independent of Plant Daniel's reduced capacity factor. In other words, the plant's reduced utilization is not correlated with increased emissions or inefficient function of pollution controls.

[14] Graph based on Mississippi Power's self-reported data available at EPA Air Markets Database, https://ampd.epa.gov/ampd/.

indicates that Daniel should not be operating at all.[15] Based on a comparison of prevailing energy market prices[16] and Mississippi Power's publicly-available production costs (*i.e.*, fuel, pollution control operating costs, and other variable operation and maintenance costs), Daniel should only be operating approximately seven percent of the time. In other words, *it is uneconomic to operate Daniel (i.e., its variable production cost exceeds energy market costs) during 93% of the hours of the year*. Without going into material designated confidential in a public filing, the recent information supplied by MPC underscores the need to closely examine the viability of the Daniel coal units.

That bleak economic outlook does not even account for the additional $62.5 million in capital and subsequent operational costs associated with Mississippi Power's proposed CCR retrofit. Nor does it account for Daniel's other environmental compliance liabilities like regional haze compliance. And Mississippi Power's own groundwater monitoring shows pollution levels around the ash pond are five times the federal drinking water safeguards, requiring remediation.[17]

MPC's 2018 Reserve Margin Plan predicts that Plant Daniel has some present value for ratepayers. However, the publicly available information indicates that if Daniel operated through 2040, it would cost customers $1.2 billion (in net present value terms) *more* to operate than the

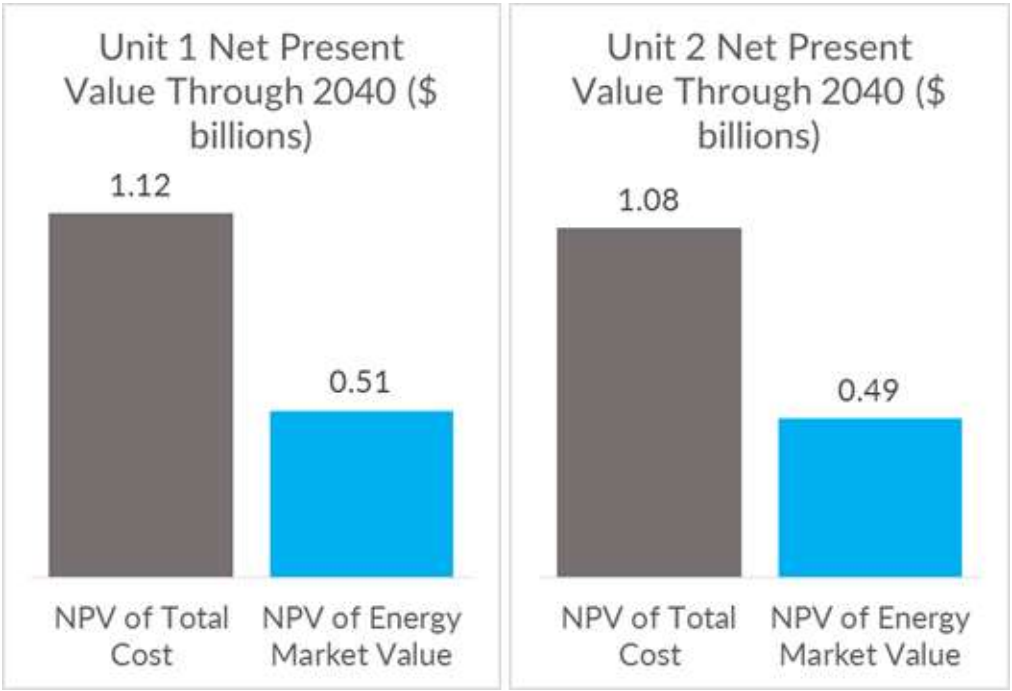
[15] Because Mississippi Power's Application failed to include basic information about the economics of Plant Daniel, Sierra Club's initial analysis is based on publicly-available data. Sierra Club reserves the right (and fully intends) to update this analysis based on any discovery it is able to timely obtain from Mississippi Power over the next six weeks, before the Company intends to begin construction.

[16] Based on 2016-2018 historical prices at the MISO-SOCO interface.

[17] Mississippi Power Company's 2018 Annual Groundwater Monitoring and Corrective Action Report at 13-14, 256 (Jan. 31, 2019), *available at* https://www.mississippipower.com/content/dam/mississippi-power/pdfs/company/plant-daniel-ash-pond-b/groundwater/AshPondB2018_AnnualRpt_FINALrev1.pdf. Mississippi Power's Application also appears to assume, again without analysis or support, that it can, in fact, adequately decontaminate the area affected by the ash pond, as required by the CCR rule, 40 C.F.R. § 257.102(c).

estimated value of the energy produced. As noted the recent data request responses also bring into question Daniel's value to ratepayers.

Figure 3: Plant Daniel Net Present Value through 2040[18]



In fact, the net going-forward cost of the plant *after* accounting for its energy market value is roughly $100/kW-year on an annualized basis, and this is without considering repayment and return on capital already sunk into the plant. For comparison, this is more than enough to

[18] Estimate based on the following assumptions and sources:

1) 2016-18 average capacity factor, fuel cost, variable O&M, fixed O&M from S&P Global (EIA and FERC Form 1 Reported Data). Costs assumed to escalate at a rate of 2% per year.

2) Incremental capital investment estimated based on EIA's Annual Energy Outlook modeling assumption, as a function of unit age and presence of FGD equipment. See: https://www.eia.gov/outlooks/aeo/assumptions/pdf/electricity.pdf

3) A discount rate of 7% was applied, and costs were evaluated across the period of 2020-2040.

4) Energy market value based on historical, generation-weighted average 2016-18 MISO-SOCO interface prices, escalated at an inflation rate of 2% per year. Given increasing wind penetration in southern MISO and SPP, along with continued low gas prices, forward pricing in the region is expected to be flat or declining over the next 10 years, so an escalating price makes the NPV of net cost a conservative estimate.

cover the fixed costs of buying a new, similarly-sized generation resource. By continuing to prop up the Daniel power plant, ratepayers are effectively paying as much as they would if the Company owned an *additional* power plant. This is due, in part, to the fact that natural gas prices have remained very low over the past five years, contrary to the Company's overly optimistic projections when it chose to install the $313 million scrubbers.

The Sierra Club does not suggest that MPC has to be right all the time in its predictions. No party is. But this history emphasizes the need for the Commission to evaluate this petition deliberately and on a full record.

3. Mississippi Power bears the burden of providing evidence in its Application supporting each element of their *prima facie* case.

Under Mississippi Law, "[n]o person shall construct, acquire, extend or operate equipment for manufacture, generating, transmitting or distributing electricity for any intrastate or interstate sale to or for the public for compensation without first having obtained from the commission a certificate that the present and future public convenience and necessity require or will require the operation of such equipment or facility."[19] Where, as here, a utility seeks approval to expand an existing facility it must submit an Application that meets the minimal filing requirements of Commission Rule 7.102 and Schedule 3 to Appendix A.

In analogous circumstances, the Commission has recognized that utilities cannot demonstrate that a project is in the public interest by simply "relying upon the wisdom of management."[20] Rather, the utility bears the burden of demonstrating that it "went through a

[19] Miss. Stat. § 77-3-11.

[20] *See* MPSC Docket No. 2013-UA-189, *In re: Petition of Mississippi Power Company for Finding of Prudence in Connection with the Kemper County Integrated Gasification Combined Cycle Generating Facility*, 2013 WL 6044209, at *1 (Miss. PSC. Oct. 15, 2013) [hereinafter *Kemper*] (citing *Entergy Gulf States, Inc. v. Pub. Utility Com'n of Texas*, 112 S.W.3d 208, 214 (Tex.App.-Austin, 2003)).

reasonable decision making process to arrive at a course of action and, given the facts as they were or should have been known at the time, responded in a reasonable manner."[21] Moreover, the utility must present "contemporaneous documentation of its decision-making process, thereby enabling the Commission to review the *actual investigations and analyses* leading to the utility's decision."[22]

This Commission and Mississippi courts have rejected utility requests for rate recovery that fail to meet those standards, and the Commission should do the same in a certificate proceeding.

Mississippi Power's application also omits core information required by the Commission's rules and necessary to establish a *prima facie* case. Where, as here, a utility seeks to construct or expand upon an existing facility, it must, among other requirements, include:

- A detailed description of the facilities proposed;
- A complete set of engineering plans and specifications;
- An estimate of the impact of the cost of facilities upon rate base and rates; and
- All testimony to be relied upon at the hearing.

Mississippi Power's petition fails to adequately address these basic informational requirements. Though some of this information has been supplemented through discovery responses, MPC did not and has not submitted the necessary information supporting the certificate application as required.

[21] Kemper, 2013 WL 6044209, at *2.

[22] *Id.; see also Entergy Gulf States, Inc. v. La. Pub. Serv. Comm'n,* 726 So. 2d 870, 876 (La. 1999) (quoting *Gulf States Util. Co. v. La. Pub. Serv. Comm'n.,* 578 So. 2d 71, 84 (La.1991)) (quoting *In Re Cambridge Electric Light Co.*, 86 P.U.R.4th 574 (Mass.D.P.U. 1987)).

In light of the declining economics of Plant Daniel, the 50% co-owner's intent to retire its share of the plant in just a few years, and uncertainty about whether Mississippi Power's retrofit plans are even necessary to reliably serve customers, it would be arbitrary and capricious and contrary to law for the Commission to grant Mississippi Power's Application without requiring the Company to meet the minimum filing requirements for any Certificate of Public Convenience and Necessity.

MPC's recent data responses clearly indicate that the company's testimony in this docket is inadequate and must be supplemented. Those data responses also state that MPC has not finished evaluating key issues such as the impact of Gulf Power's decision to shutter its 50% interest in Plant Daniel.

4. MPC's petition does not contain the information necessary for a valid decision on the public convenience and necessity, and the late filing of that petition should not force an arbitrary decision.

Prudent decision-making requires evaluation of a proposed retrofit project to other feasible alternatives, including retirement, replacement, or other less costly compliance alternatives. In fact, in analogous retrofit approval proceedings, this Commission and virtually every other Commission across the country have recognized that prudent decision-making typically requires a comparison of the "net present value" to customers from retrofitting a power plant versus retiring or replacing it with various alternatives, including renewable energy or market purchases. This would include critical assumptions and forecasts, including, among others, natural gas and coal prices, energy market prices, demand forecasts, costs of procuring replacement generation, and future environmental compliance costs.

Mississippi Power originally bypassed this whole process with the statement that Plant Daniel must continue to operate "regardless of the economics." For the Commission to accept

this statement without proof would be arbitrary and capricious on its face. MPC has now provided at least some information on the viability of Plant Daniel, but the parties have not had the opportunity to test or request information on the inputs used to reach the conclusions.

MPC has known since 2015 that the company will have to close the ash pond at Plant Daniel. The final regulations, even after all appeals and remands, were in place in July 2018. The company nonetheless waited until July 2019 to file this petition, and has requested an immediate decision on not just the ash pond closure, but also the dry bottom ash handling system and the low volume wastewater system.

Under the CCR rule's alternative closure provisions, Mississippi Power could continue to operate its current ash pond until October 2023, if the Company commits to cease burning coal by that date.[23] A 2023 retirement would comply with the rule, and avoid significant ratepayer costs including the dry bottom ash handling and potentially low volume waste water treatment. The rule provides for an extension of time if necessary to coordinate and obtain necessary approvals, among other factors.[24]

MPC's petition states that to meet the deadline the dry bottom ash handler must be constructed so the ash pond can be closed, and the low volume wastewater treatment pond placed on its site. In effect MPC is telling the Commission it has only two choices on this incomplete record: approve the whole ~$65 million package immediately, or shut down Plant Daniel in the next 12 months and cause unspecified instability in the electrical grid. MPC's position may be changing, but that is as yet unclear.

[23] 40 C.F.R. § 257.103.

[24] 40 CF.R. § 102(f)(2)(i).

MPC waited for 4 years after the regulations came out to file this petition, and even waited a year after the amended regulation. Had MPC filed this petition earlier, the Commission and the parties could have fully evaluated the economics of the plant in the context of this request, as well as the claimed transmission constraints. Even with the lead time necessary to close the ash pond and repurpose it for use as a low volume wastewater pond, a valid decision could have been made on the need for tens of millions in additional expenditures on the dry bottom ash system. In effect, Mississippi Power – at least until recently – has been telling the Commission that its late filing has foreclosed all other choices.

The Sierra Club finally notes that the transmission constraints that MPC asserts require continued operations at Plant Daniel "regardless of economics" are at best uncertain, according to the public version of the Company's responses to data requests. An additional review of those constraints, according to the public response, are being carried out by SES.[25] Thus some of the claimed constraints may be beyond the MPC service area altogether, or beyond the control of MPC.

The recent confidential data responses address this issue, and underscore that even now the asserted constraints require close review, including whether the customers of MPC should be required to continue to support an uneconomic plant as a consequence of constraints on other systems. This simply makes the point that MPC's skeletal petition is inadequate as a basis for multi-million dollar expenditures.

5. An evidentiary hearing on the petition is required by statute, and consideration of the economic viability of Plant Daniel cannot be deferred to some other proceeding.

The Commission's September 13, 2019, order in this docket directs Mississippi Power to submit a proposed order approving the CCR retrofit project, and allows intervenors seven days to

[25] Mississippi Power Company Response to MPUS 1-8, August 16, 2019.

file comments in response. The Sierra Club will provide comments, but notes for the Commission that those comments will necessarily be constrained by Mississippi Power's deficient application.

In addition, comments are not a substitute for a full evidentiary hearing on this matter. The law provides that the Commission "shall hold a public hearing on each application" for a Certificate of Public Convenience and Necessity.[26] In a case like this one, that public hearing must necessarily be on the basis of a full record, with full opportunity for discovery, testimony and cross examination.

As the Commission is aware, once a decision is made on the certificate, expenditures by MPC are presumed to be prudent.[27] This emphasizes the need for a full consideration of the relevant facts, including how Plant Daniel came to be in a position in which ratepayers have to continue to invest tens of millions to continue operations "regardless of the long term economics of the units." Full consideration of the economics of the plant cannot be deferred to a later prudency docket, or to a Reserve Margin Planning Process. A valid finding on the public convenience and necessity of the proposed retrofits demands that those matters be fully developed in this docket.

6. Conclusion

For the reasons above, Sierra Club respectfully requests that the Commission determine that Mississippi Power's Application fails to meet the utility's initial burden to produce *prima facie* evidence supporting a finding of public convenience and necessity. MPC has not provided the basic information necessary to determine whether there are better alternatives to retrofitting

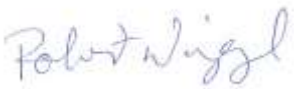
[26] Miss. Stat. § 77-3-14.

[27] In re: Petition of Mississippi Power Company for Finding of Prudence in Connection with the Kemper County IGCC Generating Facility, Order of October 15, 2013.

Plant Daniel. Mississippi Power has basically avoided this kind of hard look by asserting that retirement of Daniel is off the table regardless of the Plant's economics. The proper course is for the Commission to require a supplemental petition, and adequate opportunity for discovery and preparation for a hearing on that petition. The Sierra Club suggests that requiring supplementation by October 1, 2019, with a hearing in December 2019 would be appropriate.[28]

Respectfully submitted this 23rd day of September, 2019.

Respectfully submitted,
Mississippi Chapter Sierra Club



By: _____

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[28] *See* Miss. Stat. § 77-3-13

CERTIFICATE OF SERVICE

I, Robert B. Wiygul, counsel for Sierra Club do hereby certify that in compliance with RP6.122(2) of the Commission's Public Utilities Rules of Practice and Procedure (the "Rules").

(1) An original and twelve (12) true and correct copies of the filing have been filed with the Commission by United States Postal Service this date to:

Katherine Collier, Executive Secretary
Mississippi Public Service Commission
501 N. West Street, Suite 201-A
Jackson, MS 39201

(2) An electronic copy of the filing has been filed with the Commission via e-mail to the following address: efile.psc@psc.state.ms.us

(3) An electronic copy of the filing has been served via e-mail to the following address:

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This the 23rd day of September, 2019.

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